

AUTOMATION & CONTROLS

Motion and Process Control within Automation



WHO SHOULD PARTICIPATE?

Engineers and technicians with experience of motor control who are required or wish to develop their process, motor control and automation competencies.

PREREQUISITES

All delegates must have the below experience/knowledge to attend this course:

- Understanding of ladder logic
- Understanding of the hardware used within a PLC rack

We recommend that delegates who do not meet the above criteria attend our Electrical Maintenance Module 3 course.

PROGRAMME BENEFITS

By the end of the programme participants should have an understanding of:

- Communications between PLCs and their interface
- Advanced programming techniques
- PID control
- Motion control and its application

THE PROGRAMME WILL COVER:

- Introduction to automation and industrial digitalisation
- Instrumentation for level, temperature, flow, weight and pressure monitoring and measurement
- Converting analogue inputs (volts, amps, resistance) into a scaled useable number
- Numbering systems
- Converting a number into different base values, to include: binary, octal, hexadecimal, decimal and binary coded decimal
- Displaying analogue values using a HMI for monitoring and adjustment
- Motion and process control concepts using open and closed loop feedback
- PID controller set-up using Siemens TIA portal
- Programming using function block diagrams
- Programming using ladder logic, structured control language and function block diagram
- Networking and communication between PLCs - Profinet
- Application and use of stepper motors, servo drives
- ABB robot programming

ASSESSMENT

Internal written and practical assessment.

CERTIFICATION

Upon achievement delegates will receive an MGTS certificate of attendance.

DURATION

4 Days

OUR SERVICE LEVEL COMMITMENT

MGTS will ensure that:

- Your training and assessment programmes are delivered by Tutors highly experienced in the relevant subject matter and your industry
- The delivery of training and assessment will focus on your training objectives supported by up to date programmes and learning materials
- Your employees will receive training designed to meet their personal learning needs with additional support where appropriate
- Training programmes are delivered with your requirements as the focus ensuring total flexibility and on time delivery
- Your employees benefit from a healthy, safe and secure learning environment ensuring equality of opportunity and diversity of contribution to enhance the learning experience
- You and your employees are given support to achieve high quality personal learning and successful learning transfer to the workplace
- The confidentiality of your business development needs is maintained throughout

BOOKINGS & PAYMENTS

Bookings must be confirmed with either a purchase order or full payment to secure the booking.

New customers will be required to complete a New Customer Account form to open a credit account.

All customers will be invoiced upon booking; our standard payment terms are 30 days unless otherwise agreed in advance for credit account customers and 7 days for non-account customers.

Payment can be made by credit card or BACS/ bank transfer.

CANCELLATION POLICY

Where courses are under subscribed MGTS may cancel or re-arrange a course at their discretion. Customers will be notified no later than 10 working days prior to the planned commencement date.

MGTS accepts customer cancellations or transfers to alternative course dates, without charge up until 7 working days prior to commencement of training.

Cancellations or transfers 1 to 7 working days prior to commencement of training will incur a 50% course fee.

Cancellations with less notice than 1 working day will incur a 100% course fee.



024 7663 0333



enquiries@mgts.co.uk



www.mgts.co.uk



Head Office

Gulson Road
Coventry
CV1 2JG

Worcestershire & South Birmingham

Brook Building
Arrow Road North
Redditch
B98 8NN

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